

PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038327	MEC002-VU	3	1	Net 30	M7075T6S1.250X7.000	7075-T6 Sheet 1.25" X 7.000" Order Pre Cut To 50.00" MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft				50	11/28/2017	50		S017118	Stock	12/4/2017	\$ 44.65 / ft	0		\$2,232.50	Metaux Castle
										Total:	50	50									\$2,232.50

Plex 12/4/2017 3:55 PM Dart,Plouffe,Sonia

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3444698

Ship From:	Sold To:	Ship To:	Deliver To:				
A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA	AVESTIN INC 2450 DON REID DRIVE OTTAWA, ON K1H 1E1 CA	A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	AVESTIN INC 2450 DON REID DRIVE OTTAWA, ON K1H 1E1 CA				
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No			
22-NOV-17	ORIGIN	Prepaid	XPO LOGISTICS FREIGHT	3444698-2			
Shipment Details	Final Destination Branch - TOR						
Order No	Line No	Item No	Description				
1112032989	6	8296	✓ 6.0000.4.0000.0.5000.ANG.6061.T6.ALUMINUM.EXT.300.0000 SPECIFICATIONS: ALL MATERIAL TO BE MARKED WITH HEAT NUMBERS, NO OUTOKUMPU MATERIAL ALLOWED NORTH AMERICAN MILLS ONLY WILL BE ACCEPTED				
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
CM415		1.00 PCS	25.0000 FT				
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S- MUST BE CLEARLY VISIBLE TO THE EYE MUST HAVE PROPER PACKAGING !!! NORTH AMERICAN MILLS ONLY WILL BE ACCEPTED NO OUTOKUMPU MATERIAL WILL BE ACCEPTED ATT: ALL DISTRICTS-CLIENT REQUIRES P/SLIPS AND MILL CERTS EMAILED AT : AVESTIN@AVESTIN.COM ATT: TRISH						
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121448734	CENTRAL STEEL & WIRE CO.	 201604926	1		300.0000		139.5000

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to

Date Printed: 22-NOV-2017 01:59:30 PM

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to AMC Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Reviewed by Authorized Castle Metals Representative:		Date:	Name:
	K-40	12/10/2017	John D. Hayes

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3444698

Ship From:	Sold To:	Ship To:	Deliver To:				
A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON L5N 2K7 CAN	A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA				
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No			
22-NOV-17	ORIGIN	Prepaid	XPO LOGISTICS FREIGHT	3444698-2			
Shipment Details		Final Destination Branch - TOR					
Order No	Line No	Item No	Description				
4952481	1	752114.MO	1.2500.PL.7075.T651.ALUMINUM.USD48.5000.144.5000 CUT 2SIDED TO 7 IN (+ .0620/- .0000 IN) X 50 IN (+ .0620/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS:AMIS-QQ-A-250/12-D				
Purchase Order No	Part Number	Part Number	Ordered Qty	Invoice Qty			
38327			12.00 PCS	12.00 PCS			
Details		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121448766	CONSTELLIUM ROLLED PRODUCTS		6				271.6998
121448766	CONSTELLIUM ROLLED PRODUCTS		6				271.6998

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized.

Date Printed: 22-NOV-2017 01:59:30 PM

**INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 2 of 2

Reviewed by Authorized Castle Metals Representative:		Date:	Name:
by U.S. law and regulations.			
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to AMMAR CASTLE & CO. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.			

1874



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

S
H
I
P
T
O

A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

S
O
L
D
T
O

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE	110550653	4075	INCLUSION	Serial:20170703-0110550653	Pg 1 of 4
CUSTOMER PURCHASE ORDER NO. & ITEM 419158			Constellium ORDER NO. 202980		
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH					
CUSTOMER SPECIFICATION AMS 4045K					
PART NUMBER 752114		B/L NUMBER 83332		DATE SHIPPED 07/05/2017	
WT. SHIPPED 8010.000 LB	NO. OF PIECES 000009	GOVT. CONTRACT NO.			

CERTIFICATION
"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."
Constellium Rolled Products Ravenswood, LLC
859 Century Road
P.O. BOX 68
RAVENSWOOD, WV 26164 USA

Steve Good - Laboratory Manager

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A
 AMS QQ-A-250/12A
 AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
 ASTM B209-14
 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
 CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
 DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
 GAMP5 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
 PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001556281	890.000	403.697	9387290	01		
1001556281	890.000	403.697	9387290	02		
1001556281	890.000	403.697	9387290	03		
1001556282	890.000	403.697	9387288	01		
1001556282	890.000	403.697	9387288	02		
1001556282	890.000	403.697	9387288	03		
1001556283	890.000	403.697	9387289	01		
1001556283	890.000	403.697	9387289	02		
1001556283	890.000	403.697	9387289	03		

Lot: 9387290

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	78.6	80.2	69.4	70.1	13.0	13.5	



LCK

MATERIAL CERTIFICATION

P.O. Box 12100 - Detroit, MI 48212-0100
1-313-368-5000 1-800-462-1950
(FAX 1-800-292-3878)

P.O. Box 1154 - Milwaukee, WI 53201-1154
1-414-481-5000 1-800-521-8031
(FAX 1-800-292-6459)

Central Steel & Wire Company

P.O. Box 5100 - Chicago, IL 60680-5100
1-773-471-3800 1-800-621-6510
(FAX 1-773-471-3962)

REV DATE: APR 18, 2016

Cincinnati, OH 45216-2355
1-800-621-8510
(FAX 1-800-232-9279)

P.O. Box 22015 - Greensboro, NC 27420-2015
1-336-333-2332 1-800-621-8510
(FAX 1-800-232-9279)

SOLD TO: ATTN: DWILLIAMSON
A M CASTLE & CO
3050 S HYDRAULIC ST
WICHITA KS 67216-2405

DATE(ORG): APR 15, 2016
CSW ORDER: 707980
CUSTOMER PO: 379697

58375

ITEM 001 6" X 4" X 1/2" ALUM 6061 T6 ANGLE---25 FT

1394#

SOURCE:
SERVICE CENTER METALS
SERVICE CENTER METALS

LOT#
201604926
201600926

SYM
- MILL CERTS ARE ATTACHED
- MILL CERTS ARE ATTACHED

03D6R
02D6R

WE CERTIFY THAT THE ABOVE MATERIALS FURNISHED BY US WILL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OUTLINED.
Certifications furnished to the buyer by the seller describe the materials and/or services furnished, as indicated in the seller's records.
Results of mill tests implied in such certifications are based on standard mill practices and do not indicate each piece has been tested.

WE HEREBY CERTIFY THAT THE FOREGOING DATA IS A TRUE
REPRESENTATION OF THE DATA FURNISHED TO US BY THE PRODUCING MILL

Ryan Rathbun

RYAN RATHBUN - MANAGER
METALLURGY & TEST REPORTS

Central Steel & Wire Company



Service Center Metals

5850 Quality Way

Prince George, VA 23875

**CERTIFIED INSPECTION REPORT AND TEST RESULTS
FOR EXTRUDED PRODUCTS**



Can No.

To

Central Steel & Wire Company

SHIP TO

Central Steel & Wire Company

Customer PO

CHI-64337

Customer Part Number

60568

Quantity Certified
976 lbs 7 pcs

Material Sold to Central Steel & Wire: Heat: 201604926

IAC: 60568

PO: CHI64337

OUR ORDER NUMBER	ITEM
257495	3

CERTIFICATION	
ASTM-B308-10 SPOT STENCIL	
SPECIFICATION	
ASTM-B221-14	
SPECIFICATION	
AMS-QQA-200/B - 1997	
SPECIFICATION	
CS&W SPEC V-8 12/20/13	

We hereby certify that the material covered by this report has been inspected in accordance with the most recent certification revision, and has been found to meet the applicable requirements described herein, including any specifications forming a part of the description, and that samples representative of the material met the composition limits and had the mechanical properties shown. Items produced and certified as 6061-T651 also meet the requirements of 6061-T6.

Mechanical Properties

Test	Lot No.	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation
1	201604926	3/17/16	min 43.60	max 43.60	min 40.60 max 40.60 17.35 17.35

Chemical Composition for Aluminum Alloy 6061

Cast #	Lot No.	Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	II	Al	Others	Total	Melt Source	Comments
2K160218C	201604926	6061	0.61	0.26	0.18	0.07	0.84	0.07	0.02	0.03	97.92	0.05	0.15	United States of America	1-254

Print Date: 3/18/2016

SCM extrusions are manufactured in the USA.

Calvin J. Wiggins, Director of Quality & Technical Services

Rev B25/11 - UAS



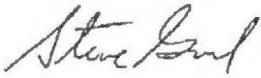
CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

S
H
I
P
T
O

A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

S
O
L
D
T
O

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110550653	4075	INCLUSION	Serial:20170703-0110550653 Pg 2 of 4		
CUSTOMER PURCHASE ORDER NO. & ITEM 419158			Constellium ORDER NO. 202980			CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager	
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH							
CUSTOMER SPECIFICATION AMS 4045K							
PART NUMBER 752114	B/L NUMBER 83332		DATE SHIPPED 07/05/2017				
WT. SHIPPED 8010.000 LB	NO. OF PIECES 000009	GOVT. CONTRACT NO.					

Tensile - Room Temperature (SI)								Report
Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	542	553	478	483	13.0	13.5	

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

Lot: 9387288

Tensile - Room Temperature (US)								Report
Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	80.7	81.1	71.2	71.3	12.5	13.5	



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

S
H
I
P
T
O

A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

S
O
L
D
T
O

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110550653	4075	INCLUSION	Serial:20170703-0110550653	Pg 3 of 4																												
CUSTOMER PURCHASE ORDER NO. & ITEM 419158				Constellium ORDER NO. 202980		<p>CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA</p> <p><i>Steve Good</i></p> <p>Steve Good - Laboratory Manager</p>																												
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm																													
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH																																		
CUSTOMER SPECIFICATION AMS 4045K																																		
PART NUMBER 752114		B/L NUMBER 83332		DATE SHIPPED 07/05/2017																														
WT. SHIPPED 8010.000 LB		NO. OF PIECES 000009		GOVT. CONTRACT NO.																														
Tensile - Room Temperature (SI) <table border="1"> <thead> <tr> <th colspan="4">Ultimate (N/MM2)</th> <th colspan="2">Yield (N/MM2)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th></th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>556</td> <td>559</td> <td>491</td> <td>492</td> <td>12.5</td> <td>13.5</td> <td></td> </tr> </tbody> </table>								Ultimate (N/MM2)				Yield (N/MM2)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max		LT	02	556	559	491	492	12.5	13.5	
Ultimate (N/MM2)				Yield (N/MM2)		Elongation (%)		Report																										
Direction	Tests	Min	Max	Min	Max	Min	Max																											
LT	02	556	559	491	492	12.5	13.5																											
Chemistry (Actual) <table border="1"> <thead> <tr> <th></th> <th>SI</th> <th>FE</th> <th>CU</th> <th>MN</th> <th>MG</th> <th>CR</th> <th>ZN</th> <th>TI</th> <th>ZR</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>0.05</td> <td>0.15</td> <td>1.52</td> <td>0.05</td> <td>2.50</td> <td>0.21</td> <td>5.41</td> <td>0.03</td> <td>0.00</td> </tr> </tbody> </table>									SI	FE	CU	MN	MG	CR	ZN	TI	ZR	Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00							
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR																									
Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00																									
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																																		
All material contained in this lot was cast and manufactured in the USA																																		
Lot: 9387289																																		
Tensile - Room Temperature (US) <table border="1"> <thead> <tr> <th colspan="4">Ultimate (KSI)</th> <th colspan="2">Yield (KSI)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th></th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>80.3</td> <td>81.1</td> <td>70.0</td> <td>71.2</td> <td>13.5</td> <td>14.0</td> <td></td> </tr> </tbody> </table>								Ultimate (KSI)				Yield (KSI)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max		LT	02	80.3	81.1	70.0	71.2	13.5	14.0	
Ultimate (KSI)				Yield (KSI)		Elongation (%)		Report																										
Direction	Tests	Min	Max	Min	Max	Min	Max																											
LT	02	80.3	81.1	70.0	71.2	13.5	14.0																											
P-860-155D REVISED: 10 2014																																		



Constellium



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

S
H
I
P
T
O

A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

S
O
L
D
T
O

A M CASTLE

1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110550653	4075	INCLUSION	Serial:20170703-0110550653	Pg 4of4																									
CUSTOMER PURCHASE ORDER NO. & ITEM 419158				Constellium ORDER NO. 202980			<p>CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA</p> <p><i>Steve Good</i></p> <p>Steve Good - Laboratory Manager</p>																								
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm																										
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH																															
CUSTOMER SPECIFICATION AMS 4045K																															
PART NUMBER 752114		B/L NUMBER 83332		DATE SHIPPED 07/05/2017																											
WT. SHIPPED 8010.000 LB		NO. OF PIECES 000009	GOVT. CONTRACT NO.																												
Tensile - Room Temperature (SI) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Direction</th> <th rowspan="2">Tests</th> <th colspan="2">Ultimate (N/MM²)</th> <th colspan="2">Yield (N/MM²)</th> <th colspan="2">Elongation (%)</th> <th rowspan="2">Report</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>554</td> <td>559</td> <td>483</td> <td>491</td> <td>13.5</td> <td>14.0</td> <td></td> </tr> </tbody> </table>								Direction	Tests	Ultimate (N/MM ²)		Yield (N/MM ²)		Elongation (%)		Report	Min	Max	Min	Max	Min	Max	LT	02	554	559	483	491	13.5	14.0	
Direction	Tests	Ultimate (N/MM ²)		Yield (N/MM ²)		Elongation (%)				Report																					
		Min	Max	Min	Max	Min	Max																								
LT	02	554	559	483	491	13.5	14.0																								
Chemistry (Actual) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>SI</th> <th>FE</th> <th>CU</th> <th>MN</th> <th>MG</th> <th>CR</th> <th>ZN</th> <th>TI</th> <th>ZR</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>0.05</td> <td>0.15</td> <td>1.52</td> <td>0.05</td> <td>2.50</td> <td>0.21</td> <td>5.41</td> <td>0.03</td> <td>0.00</td> </tr> </tbody> </table>									SI	FE	CU	MN	MG	CR	ZN	TI	ZR	Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00				
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR																						
Core	0.05	0.15	1.52	0.05	2.50	0.21	5.41	0.03	0.00																						
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																															
All material contained in this lot was cast and manufactured in the USA																															
QUALITY TEXTS: AMC CA-15403A R 7																															
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YWL9 Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"																															

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075t6s1.250x7.000
 DATE: DEC 05 2017

PO / BATCH NO.: 038327/5017118

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 50"
 QUANTITY INSPECTED: 50"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.25
 THICKNESS RECEIVED: 1.25
 SHEET SIZE ORDERED: 1.25 x 7.000
 SHEET SIZE RECEIVED: 1.25 x 7.000

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>QQ-A-250/12</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>Heat # 9387290</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MM# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>jl</u> <u>9</u>	SIGNED OFF BY: _____
DATE: <u>DEC 05 2017</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

A PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
 SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/12
 OR AMS 4045
 OR ASTM B209

OR

A PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
 SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
 OR AMS 4048 / 4049
 OR ASTM B209

A PART NUMBER: M7075T6S | TTT | X | W.WWW |

WHERE "TTT" = THICKNESS (IN INCHES)

AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)
 EG. 0.063" THICK SHEET = M7075T6S.063
 EG. 3.5" WIDE BY 0.50" THICK PLATE = M7075T6S.500X3.500

A PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED
 2017 JUN 19 ✓
 ECN 17-574

RELEASER

B	ADD: REF TO PLATE: "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
	DART AEROSPACE LTD		
	HAWKESBURY, ONTARIO, CANADA		
DESIGN	RF	DRAWING NO.	REV. B
DRAWN	CP	M7075T6S	SHEET 1 OF 1
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	7075-T6 SHEET/PLATE SPEC	NTS
DATE	17.05.05	COPYRIGHT © 2010 BY DART AEROSPACE LTD. ALL DOCUMENTS ARE CONFIDENTIAL AND NOT FOR DISSEMINATION OR RELEASE OUTSIDE THE COMPANY. THEY ARE THE PROPERTY OF DART AEROSPACE LTD. AND ARE THE EXCLUSIVE PROPERTY OF DART AEROSPACE LTD. ANY USE, REPRODUCTION, OR DISSEMINATION IS PROHIBITED UNLESS EXPRESSLY APPROVED BY DART AEROSPACE LTD.	

1 2 3 4 5 6 7 8

3

2

1



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
PO038327

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO038327
PO Date: 11/10/17
Due Date: 11/28/17
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Lavoie, Chantal Phone:
clavoie@dartaero.com
Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

NOV 10 2017

Items

Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S0.375X6.000 -		7075-T6S Sheet .375" Thick Plate X 6" Wide		Firmed	11/28/17	12 ft	0 ft	12 ft	\$25.68/ft	\$308.16
2	M7075T6S0.375X8.000 -		7075-T6S Sheet .375" Thick Plate X 8" Wide		Firmed	11/28/17	12 ft	0 ft	12 ft	\$30.75/ft	\$369.00
3	M7075T6S1.250X7.000 -		7075-T6 Sheet 1.25" X 7.000" Order Pre		Firmed	11/28/17	50 ft	0 ft	50 ft	\$44.65/ft	\$2,232.50

50 ft
SPT-A-24



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
PO038327

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
			Cut To 50.00" MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft								
Line Item Note note: cut to size 12 pcs @ 50" long											
4	M7075T6S1.250X2.000 -		7075-T6 Sheet 1.250" X 2.000" MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft			Firmed 11/28/17	12 ft	0 ft	12 ft	\$20.12/ft	\$241.44
5	M7075T6S1.500X1.500 -		7075-T6S Sheet 1.5" Thick Plate X 1.5" Wide MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft			Firmed 11/28/17	24 ft	0 ft	24 ft	\$21.06/ft	\$505.44
6	M7075T6S1.750X2.250 -		7075-T6 Sheet 1.750" X 2.250" MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft			Firmed 11/28/17	24 ft	0 ft	24 ft	\$28.62/ft	\$686.88



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

**PURCHASE ORDER
PO038327**

Line Item Note note 1.5" x 2.50" acceptable

9	M7075T6S7.000X2.000 -	7075-T6S Sheet 7" Thick Plate X 2" Wide	Firmed 11/28/17	24 ft	0 ft	24 ft	\$78.52/ft	\$1,884.48
---	-----------------------	--	-----------------	-------	------	-------	------------	------------



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038327

Items											
Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
			MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft								

Grand Total: \$7,393.90 

Order Notes

Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/10/17 9:44 AM dart.lavoie.chantal



PACKING SLIP/
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3449864

Ship From:	Sold To:	Ship To:	Deliver To:	
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	
Date Shipped	F.O.B.	Freight Terms	Carrier	
30-NOV-17	ORIGIN	Prepaid	MANITOULIN	
Purchase Order No	Part Number	Final Destination Branch - TOR		
4952710	5	771698.MO	Description	
38327			00500.SH.7075.T6.ALUMINUM,BARE.48.0000.144.0000 -PROTECTIVE VINYL COATING SPECIFICATIONS: AMS-QQ-A-250/12	
Details		Ordered Qty	Invoice Qty	
		1.00 PCS	1.00 PCS	
		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY		
		ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S		
		Email P/s and certs to: clavoie@dartaero.com		
		END USER: DART AEROSPACE		
		END USE: COMMERCIAL AIRCRAFT PARTS		

Delivery No.	Mill/Source	Heat Number	Mach Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121429664	KAISER ALUMINUM			1			34.6021

We hereby certify the material covered by this specification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description for credit. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A. M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer can not be returned.

Reviewed by Authorized Castle Metals Representative

Nov 30 2017



Date Printed: 30-NOV-2017 03:23:42 PM

SHIP TO:
 A M CASTLE & CO
 14001 ORANGE AVE
 P.O. BOX 1402
 PARAMOUNT, CA 90723

SOLD TO:
 AM CASTLE & CO- SOLD TO
 1420 KENSINGTON RD
 SUITE 220
 OAK BROOK, IL 60523

KAISER
ALUMINUM

Trentwood Works - Spokane, WA 99215
 Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
 4475080

CUSTOMER PO NUMBER: 429692-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 770200	SHIP RUN/LOAD: 104018/16	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1239853-1	SHIP DATE: 22-AUG-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T6
WEIGHT SHIPPED: 7923 LB	QUANTITY: 2 PCS EST.	TRUCK BIL #: 2068590	GAUGE: 0.0500 IN (1.2700 MM)	DIAMETER/WIDTH: 48.000 IN (1219.2 MM)

MHU 2141882: LOT 233428B2: 1 pieces;
 MUH 2141886: LOT 233428B2: 1 pieces;

Certified Specifications

AMS 4045/RevL
 CMMP 019/RevD

AMS-QQ-A-250/12/RevA
 CMMP 025/RevV

ASTM B 209/Rev14

Test Code: 1512
 Lot: 233428B2 Cast 504

Test Results
 Drop 04 Ingot 5

Melted in USA

(ASTM E8/B557)
 (EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T6	LT / 2 (Min:Max)	84.0 : 84.4 (579 : 582)	74.8 : 74.9 (516 : 516)	13.8 : 13.9

(ASTM E1251)

Chemistry:	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr	Other
Actual(wt%)	0.08	0.19	1.5	0.05	2.5	0.20	5.7	0.03	0.01	0.01	TOT 0.03

ALLOY LIMITS

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr	Other	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS
 AMC A97075-152 R 5





Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4475080

CERTIFICATION

- Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:
- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
 - All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
 - was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
 - has been thermally processed in compliance with AMS 2722, where applicable.
 - is mercury free, within the limits of detection of ASTM E1215 (< 1ppm).
 - is in compliance with RoHS 2, European Union Directive 2011/65/EU.
 - is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
 - is free of Conflict Minerals, as defined in Section 152 of the Dodd-Frank Act.
 - is free of weld repair.
 - meets the reporting requirements of EN10204, Type 3.1.
- Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER